

CLAIMS

1. A method for the pretreatment of chips that are fed to a sulphate cooking process where the chips are heated with steam and are thereafter formed into a slurry with alkali impregnation fluid before cooking in the digester
5 c h a r a c t e r i s e d in that an acidic fluid is added to the chips in association with the heating by steam in an amount the gives the chips at least a five-fold, preferably at least a ten-fold, increase in the ionic concentration of hydrogen ions at the end of the steam treatment compared to steam treatment without the addition of acidic fluid, whereby
10 the final pH of the chips is reduced by at least 0.5 units and preferably at least 1 unit.
2. The method according to claim 1, c h a r a c t e r i s e d in that the acidic fluid has a pH that does not exceed 4-5, and in that the acidic treatment
15 fluid is at least partially added in a pressurised steam treatment vessel, at a pressure in the vessel that exceeds that of the surrounding atmosphere by at least 0.5-2 bar.
3. The method according to claim 1, c h a r a c t e r i s e d in that the acidic
20 fluid has a pH that does not exceed 4-5, and in that the acidic treatment fluid is partially added at least in a vessel at atmospheric pressure or at a slightly higher pressure, at a pressure in the vessel that exceeds that of the surrounding atmosphere by between 0 and 0.5 bar.
- 25 4. The method according to claim 2, c h a r a c t e r i s e d in that the volume of the added acidic fluid relative to the volume of the chips does not exceed 2:1.
- 30 5. The method according to any one of the preceding claims, c h a r a c t e r i s e d in that the alkali impregnation fluid in which the heated and acidified chips are formed into a slurry is constituted by sulphide-rich liquor.

6. The method according to claim 5, c h a r a c t e r i s e d in that the alkali impregnation fluid is constituted by a mixture of at least one of sulphide-rich white liquor, sulphide-rich black liquor, and/or sulphide-rich green liquor, and that the alkali impregnation fluid has a molarity of HS^- that exceeds 0.15 mol/litre, preferably one that exceeds 0.25 mol/litre.
7. The method according to claim 6, c h a r a c t e r i s e d in that the alkali impregnation fluid has a molarity of NaOH that does not exceed 0.75 mol/litre, preferably one that does not exceed 0.5 mol/litre.
8. The method according to any one of the preceding claims, c h a r a c t e r i s e d in that the heating by steam of the chips together with the added acidic fluid takes place during a period of 1-20 minutes, preferably 5-10 minutes and at a temperature in the range 80-120°C.